Contact

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(LinkedIn)

Top Skills

Gazebo
Python (Programming Language)
OpenCV

Udbhaw Anand

AI Engineer | Machine Learning · Computer Vision | PX4 · YOLO · Autonomous Systems | Hackathon Winner(x3) | Defense-Tech Projects
Delhi, India

Summary

I am a Computer Vision & Autonomous UAV Engineer working at the intersection of AI, robotics, and mission-critical systems. My focus is on translating advanced perception and decision-making models into reliable, real-world autonomy, not just simulations or demos.

I work on systems where machines must see, reason, and act under dynamic constraints—whether navigating complex environments, validating real-world data, or supporting high-stakes operational workflows.

What I'm Working On
Currently, at Archanion Engineering, I develop autonomous flight and perception pipelines for UAV platforms. My work involves integrating YOLO-based real-time object detection with PX4 and MAVSDK, designing end-to-end pipelines that connect vision, navigation, control logic, and simulation to achieve dependable autonomy.

Alongside my role, I actively build and deploy independent AI systems across defense-tech, environmental monitoring, and infrastructure automation.

Key Achievements & Projects

Blockchain-based Blue Carbon MRV System: Built an AI verification pipeline using YOLOv8 (aerial + ground models) for mangrove detection, duplicate prevention, and generation of a data-driven Trust Score for carbon credit legitimacy.

Defense & Logistics AI Platform: Designed a modular mission-planning and transport optimization system, covering route planning, convoy coordination, monitoring, and decision support.

Technical Focus

AI & Vision: YOLOv8, OpenCV, Object Detection & Tracking
UAV & Autonomy: PX4, MAVSDK, SITL/Gazebo
Software: Python, React.js, Tailwind CSS

I'm motivated by problems where systems must work outside controlled environments. I'm particularly interested in roles involving autonomous systems, robotics, defense-tech, and applied AI with real operational impact.

Experience

Archanion Engineering
Computer Vision & UAV Autonomy Engineer (YOLO · PX4 · MAVSDK)
November 2025 - Present (3 months)
A65, Duhai Industrial Area, Ghaziabad,Uttar Pradesh - 201017

Designed and simulated an autonomous UAV system using PX4 SITL, MAVSDK, and Gazebo, integrating computer vision–based detection and tracking with real-time offboard flight control. Implemented MAVLink NED setpoint pipelines, safety checks, and autonomous behaviors including search, lock-on, and precision descent. Focused on robust control logic, simulation fidelity, and safe autonomous operation.

Education

ABESIT
 · (2023 - 2027)